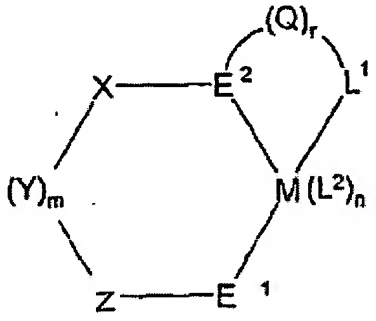
AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Original) A compound of formula I



I

wherein

each of X, Y, Z is independently selected from O, S, NR^1, CR^2R^3, N and CR^4, and where optionally X-Y, Y-Z, Z-E^1 and X-E^2 each independently form part of a saturated or unsaturated ring system which may be substituted or unsubstituted;

m is 0 or 1;

M is a metal selected from Ti[III], Ti[IV], Fe[II], Fe[III], Co[I], Co[II], Co [III], Ni[II], Cr[III], Mn[II]; Mn[III]; Mn[IV], Ru[II], Ru[III], Ru[IV], Pd[II], V[II], V[III], V[IV], V[V], Cu[I], Cu[II], Rh[I], Rht[III], Mo[III], Mo[V], Re[I] and Re[II];

each of E^1 and E^2 is independently selected from O, S, NR^5, N, P, PR^6, where at least one of either E^1 or E^2 carries a formal negative charge;

L^2 is a one electron donor ligand;

n is zero or an integer such that the compound has an overall charge of zero or +1;

L^1 is NR^7R^8, PR^7R^8, OR^7, SR^7, O, S or NR^{16}, imidazolyl, pyridinyl, benzimidazolyl or quinolinyl;

each of R^{1-8} and R^{16} is independently H or a hydrocarbyl group;

Q is a linker group; and

r isO or 1.

2. (Original) A compound according to claim 1 wherein L^2 is selected from halide, hydride, alkyl and cyanide.

3. (Currently Amended) A compound according to claim 1 wherein L^2 is chloride or bromide.

4. (Currently Amended) A compound according to claim 1 wherein X, Y and Z are each independently selected from CR^2R^3 and CR^4.

5. (Original) A compound according to claim 4 wherein:

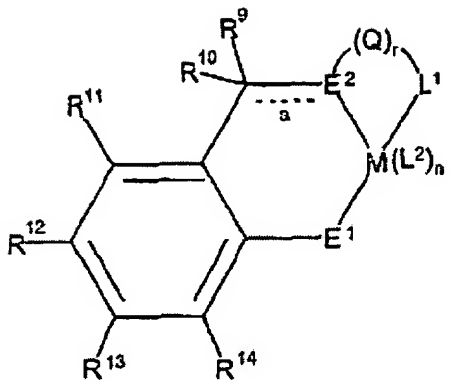
(i) m is 1, each of X-E^2 and Y-Z is independently a single or a double bond or part of a delocalised π system, and X-Y and Z-E^1 are single bonds; or

(ii) m is 1, each of X-Y and Z-E^1 is independently a single or a double bond or part of a delocalised π system, and Z-E^2 and Y-Z are single bonds; or

(iii) m is 0, each of X-E^2 and Z-E^1 is independently a single or a double bond or part of a delocalised π system, and X-Z is a single bond.

6. (Currently Amended) A compound according to claim 1 wherein m is one, Y-Z is a double bond or part of a delocalised π system, and X-E^2 is a single or a double bond.

7. (Currently Amended) A compound according to claim 1 which, comprises a compound of formula II



II

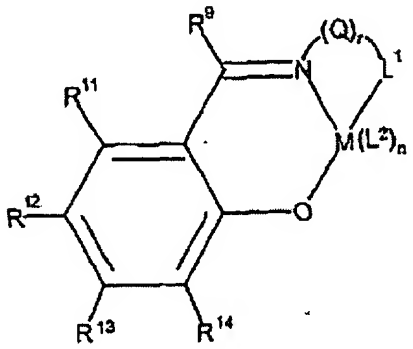
wherein each of R^{9-14} is independently H, a hydrocarbyl group, a halide, ether, thioether, ester, nitro, dialkylamino, or cyano group, and "a" is a double bond or part of a delocalised π system (where one of R^9 or R^{10} is absent), or "a" is a single bond.

8. (Currently Amended) A compound according to claim 1 wherein X-E^2 is a double bond or part of a delocalised π system, and E^2 is N.

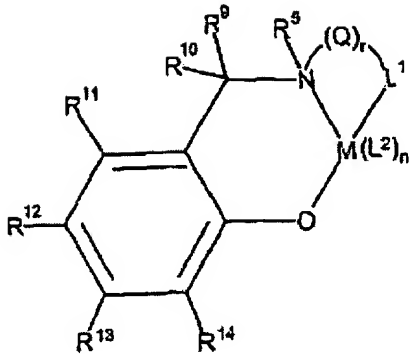
9. (Currently Amended) A compound according to claim 1 wherein X-E^2 is single bond and E^2 is NR^5.

10.(Currently Amended) A compound according to claim 1 wherein E^1 is O.

11. (Currently Amended) A compound according to claim 1 which comprises a compound of formula III or IV



III



IV

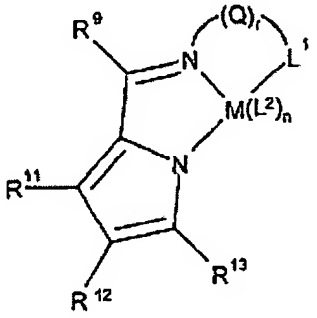
wherein each of R^{9-4} is independently H, a hydrocarbyl group, a halide, ether, thioether, ester, nitro, amino, or cyano group.

12. (Currently Amended) A compound according to claim 1 wherein M is Fe.

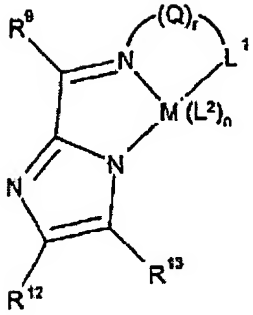
13. (Currently Amended) A compound according to claim 1 wherein L^2 is chloride and n is one or two.

14. (Currently Amended) A compound according to claim 1 wherein m is 0, X-E^2 and Z-E^1 are both double bonds or each form part of a delocalised π system, and X-Z is a single bond.

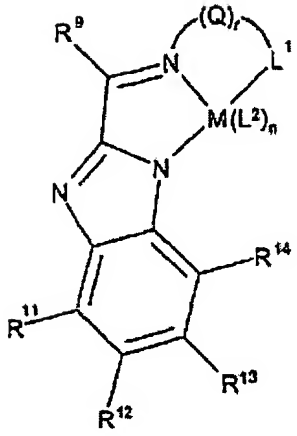
15. (Currently Amended) A compound according to claim 1 wherein said compound is of formula V, VI or VII



V



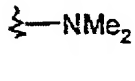
VI

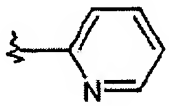


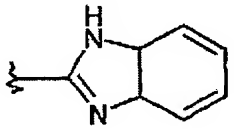
VII

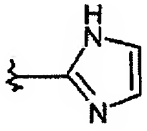
wherein each of R^{9-14} is independently H, a hydrocarbyl group, a halide, ether, thioether, ester, nitro, dialkylamino, or a cyano group.

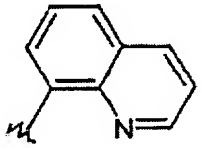
16. (Currently Amended) A compound according to ~~any preceding~~ claim 1 wherein L^1 is selected from the following: O, -S, $-NR^{16}$,

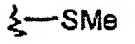


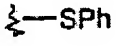


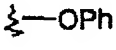


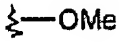












17. (Currently Amended) A compound according to claim 1, wherein the linker group Q is $-(CHR^{15})_P-$ or a phenylene group, where p is 1, 2, 3.....10, and each R^{15} is independently H or a hydrocarbyl group.

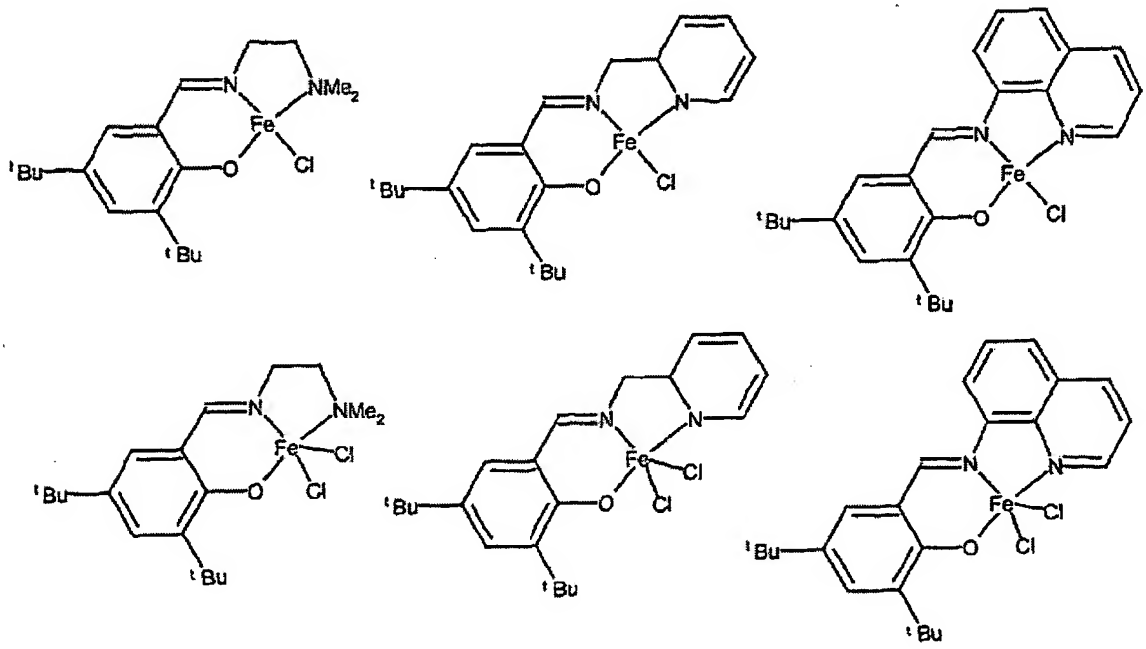
18. (Original) A compound according to claim 17 wherein the linker group Q is *o*-phenylene or $-(CH_2)_P-$ where p is 1 or 2.

19. (Currently Amended) A compound according to claim 1 wherein r is 1.

20. (Currently Amended) A compound according to claim 1 wherein each of R^{1-15} is independently a C_{1-50} alkyl optionally comprising one or more heteroatoms, aryl or a heteroaryl.

21. (Currently Amended) A compound according to claim 1, wherein each, of R^{1-15} is independently a C_{1-20} alkyl.

22. (Currently Amended) A compound according to claim 1 wherein said compound of formula I is selected from the following:



23. (Currently Amended) A catalyst composition comprising a compound according to claim 1 and an initiator.

24. (Original) A catalyst composition according to claim 23 wherein the initiator has a radically transferable atom or group.

25. (Currently Amended) A catalyst composition according to claim 23 wherein the initiator is selected from an alkyl halide optionally containing an electron withdrawing group in the alpha position, a substituted or unsubstituted arenosulphonyl halide, an alkyl dihalide, a sulphonyl halide and a polymer bearing one or more radically transferrable group.

26. (Currently Amended) A catalyst composition according to claim 23 wherein the initiator is selected from CCl_4, $CHCl_3$, CCl_3Br, 2-bromoethylisobutyrate, 2-bromoisobutyrophenone, para-toluenesulphonyl chloride, phenoxybenzene-4,4'-disulphonyl chloride, 1,3-benzene disulphonyl chloride.

27. (Currently Amended) A catalyst composition according to claim 23 wherein the initiator is AIBN.

28. (Currently Amended) A catalyst composition according to claim 23 wherein the compound of formula I is supported on an inorganic or organic solid support.

29. (Currently Amended) Use of a compound according to claim 1, or a catalyst composition, for polymerising a radically polymerisable monomer.

30. (Currently Amended) A process for polymerising a radically polymerisable monomer, said process comprising contacting a catalyst composition according to claim 23 with a radically polymerisable monomer, optionally in the presence of a solvent.

31. (Original) A process according to claim 30 wherein the radically polymerisable monomer is selected from one or more of the following: C_{2-8} alpha olefins,

optionally substituted conjugated dienes, acrylic acid, acrylic anhydride, (meth)acrylamides, vinyl halides, (meth)aciylonitrile, (meth)acrylate esters of C_{1-20} alcohols, vinyl esters of C_{1-20} alcohols, vinyl amides having up to 8 carbons, vinyl ketones having up to 8 carbons, vinyl substituted aryls.

32. (Currently Amended) A process according to claim 30 wherein the radically polymerisable monomer is an acrylate selected from the following: methyl acrylate, ethyl acrylate, butyl methacrylate, 2- ethyhexyl acrylate, isobornyl acrylate, and functional derivatives thereof such as 2-hydroxy ethyl acrylate, 2-chloro ethyl acrylate.

33. (Currently Amended) A process according to claim 30 wherein the radically polymerisable monomer is a methacrylate selected from the following: methyl methacrylate, ethyl methacrylate, butyl methacrylate, 2-ethylhexyl methacrylate, isobornyl methacrylate, 2-hydroxy ethyl methacrylate, 2-chloro ethyl methacrylate , 2-hydroxypropyl methacrylate, (HPMA) 2-morpholinoethylmetliacrylate (MEMA), 2-(dimethylamino)ethyl methacrylate (DMA), glyerol monomethacrylate (GMA), methoxy capped oligo(ethyleneglycol) methacrylate (OEGMA), poly(ethyleneglycol) methacrylate (PEGMA), glycidyl methacrylate.

34. (Currently Amended) A process according to claim 30 wherein ~~wherein~~ the radically polymerisable monomer is a (meth)acrylamide selected from the following: (meth)acrylamide, N-methyl (meth)acrylamide and, N,N'dimethyl (meth)acrylamide.

35. (Currently Amended) A process according to claim 30 wherein the radically polymerisable monomer is selected from the following: styrene, methyl acrylate, methyl methacrylate, 2-hydroxypropyl methacrylate, (HPMA) 2-morpholinoethylmethacrylate (MEMA), 2-(dimethylamino)ethyl methacrylate (DMA), glyerol monomethacrylate (GMA), methoxy capped oligo(ethyleneglycol) methacrylate (OEGMA), poly(ethyleneglycol) methacrylate (PEGMA) and glycidyl methacrylate.

36. (Currently Amended) A process according to claim 30 wherein the ratio of initiator to radically polymerisable monomer is from $2x10^{-3}$:1 to $1x10^{-4}$:1.

37. (Currently Amended) A process according to claim 30 wherein the ratio of initiator to radically polymerisable monomer is from $1x10^{-3}$:1 to $1.6x10^{-4}$:1.

38. (Currently Amended) A process according to claim 30 wherein the ratio of initiator to radically polymerisable monomer is from $4x10^{-4}$:1 to $2x10^{-4}$:1.

39. (Currently Amended) A process according to claim 30 wherein the ratio of initiator to the compound of formula I is from $1x10^{-4}$:1 to 10:1.

40. (Currently Amended) A process according to claim 30 wherein the ratio of initiator to the compound of formula I is from $1x10^{-1}$:1 to 5:1.

41. (Currently Amended) A process according to claim 30 wherein the polymerisation takes place at a temperature of from about -20°C to 200°C.

42. (Currently Amended) A process according to claim 30 wherein the polymerisation takes place in the presence of a Lewis acid activator.

43. (Original) A process according to claim 42 wherein the Lewis acid activator is an aluminium alkyl, an aluminium alkoxide, an aluminuim halide an alkyl zinc reagent, or a borane.

44. (Original) A process according to claim 43 wherein the Lewis acid activator is

selected from methyl aluminium, bis(2,6 di-tert-butylphenoxide), aluminium tris(iso-propoxide), aluminium trichloride, diethyl zinc, BPh_{13} and $B(C_6F_5)_3$.

45. (Currently Amended) A process according to claim 42 wherein the ratio of activator to the compound of formula I is from 1:1 to 10:1.

46. (Currently Amended) A process according to claim 29 wherein the polymerisation is carried out in bulk, solution, emulsion, suspension or in the gas phase.

47. (Currently Amended) A polymerisation mixture comprising a catalyst composition according to claim 23 and a radically polymerisable monomer, which optionally further comprises a solvent and/or a Lewis acid activator.